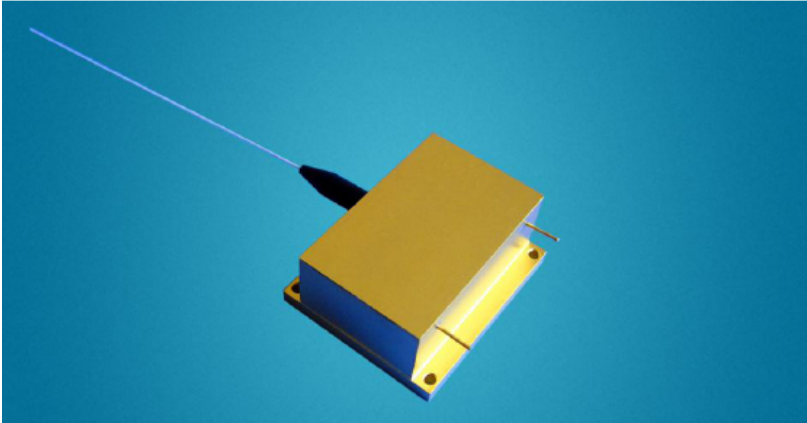


S94SG3F-50W-R S98SG3F-50W-R

Product Information



Key Features:

- ◆ 50W output power
- ◆ 105 μ m fiber core diameter
- ◆ 0.22NA
- ◆ 940nm, 976nm wavelength
- ◆ 1040-1100nm feedback protection

Applications:

- ◆ Fiber laser pumping
- ◆ Medical use
- ◆ Material processing



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Gemini Series- 9××nm High Brightness Diode Laser

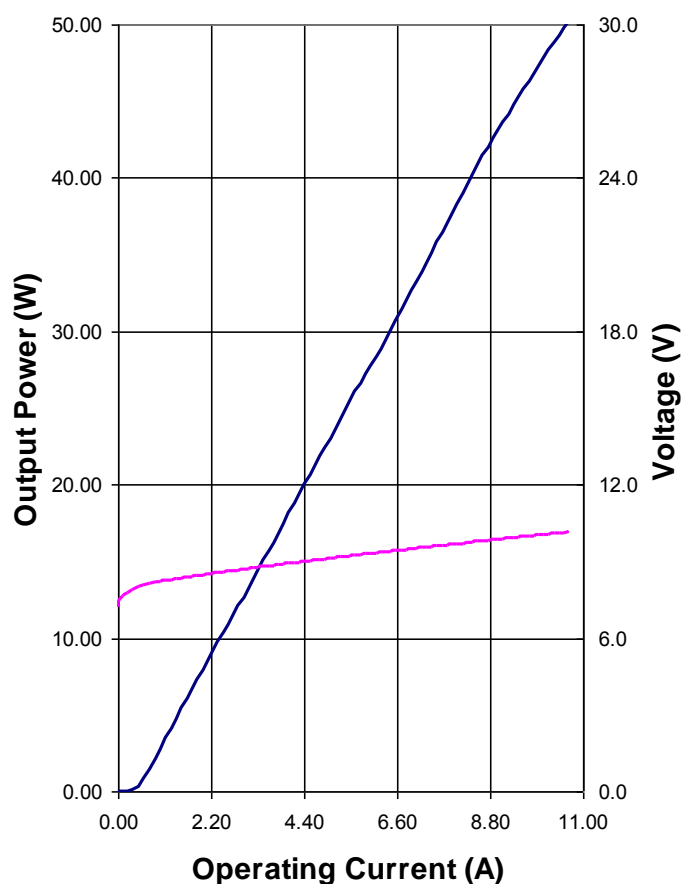
Specifications (25°C)		Symbol	Unit	K94SG3F-50.00W-R	K98SG3F-50.00W-R
Optical data	CW-output power	P_o	W	50	
	Center wavelength	λ_c	nm	940	976
	Tolerance of λ	-	nm	$\pm 3, \pm 10$	
	Spectral width (FWHM)	$\Delta\lambda$	nm	<5	
	Temperature drift of λ	-	nm/°C	~0.3	
Fiber data ⁽¹⁾	Fiber core diameter	W_c	μm	105	
	Numerical aperture	NA	-	0.22	
	Fiber connector	-	-	SMA-905	
Electrical data	Operation current	I_{op}	A	12	
	Threshold current	I_{th}	A	0.5	
	Conversion efficiency	η	%	46	
	Slope efficiency	η_D	W/A	5.2	
	Operation voltage	V_{op}	V	10.8	
	Reverse voltage	V_{re}	V	15	
Feedback	Wavelength range	λ	nm	1040-1100	
Isolation	Isolation	-	dB	>45	
Others	Operation temperature	T_{op}	°C	10~30	
	Storage temperature	T_{st}	°C	-20~+80	
	Lifetime	MTBF	h	>100,000	
	Dimensions (fiber and connector not included)	-	mm	60.0 x 50.0 x 25.0	
	Lead soldering temperature	T_{is}	°C	260(10 sec.)	

(1) Other fibers available.

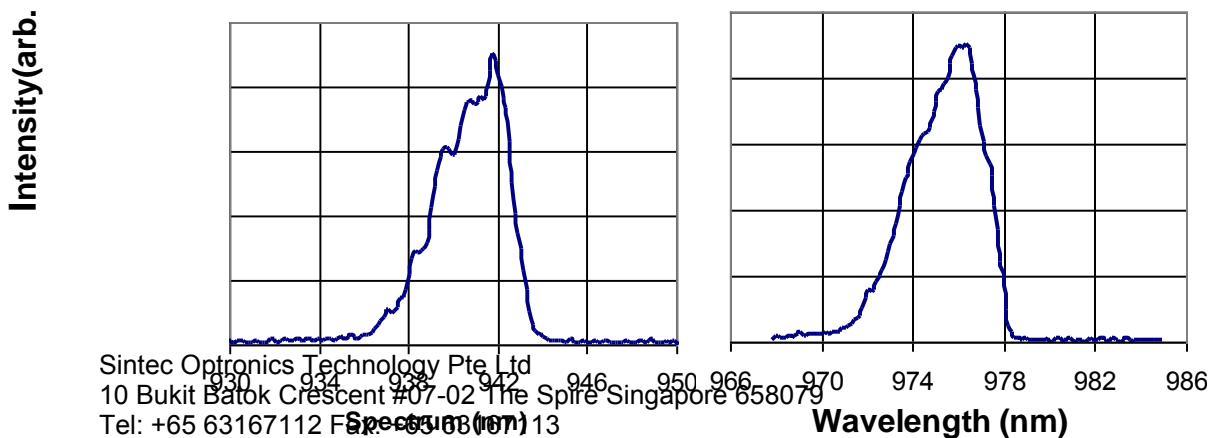
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Gemini Series- 9××nm High Brightness Diode Laser

Characteristics



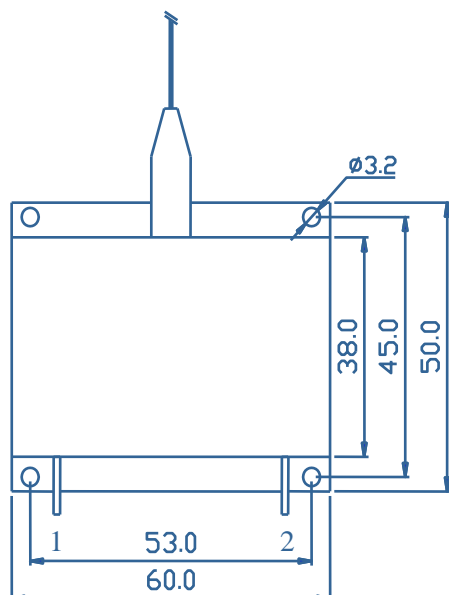
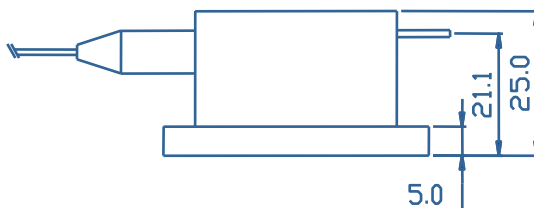
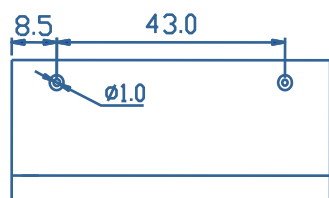
Typ. spectrum (T=25°C)



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Gemini Series- $9 \times \times$ nm High Brightness Diode Laser

Package Dimensions (mm)



Pin	Function
1	LD (+)
2	LD (-)

OPERATING NOTES

- Avoid eye exposure to direct or scattered radiation.
- ESD precautions must be taken.
- Please connect pins to wires by solder instead of using socket when operation current is higher than 6A. Soldering point should be close to the root of the pins. Soldering temperature should be lower than 260°C and time shorter than 10 second.
- Use constant current power supply. Avoid surge current.
- Laser diode must be used according to the specifications.
- Laser diode must work with good cooling.
- A minimum bend diameter should be 300 times greater than the fiber diameter.
- Operation temperature is $10^{\circ}\text{C} \sim 30^{\circ}\text{C}$.
- Storage: $-20^{\circ}\text{C} \sim +80^{\circ}\text{C}$, all pins short-circuit.

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